DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-013266 Address: 333 Burma Road **Date Inspected:** 13-Apr-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Du Zhi Qun No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Tower

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed randomly Visual Inspection Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6028 (MT) report for this date. The member is identified as South Tower lift 3 cable tray. The weld designations reviewed are as follows.

B22-3-EL85.486M-1-1-S, 1-2-S, 2-1-S, 2-2-S

B22-3-EL86.785M-1-1-S, 1-2-S, 2-1-S, 2-2-S

B22-3-EL88.083M-1-1-S, 1-2-S, 2-1-S, 2-2-S

B22-3-EL89.038M-1-1-S, 1-2-S, 2-1-S, 2-2-S

NDT Notification No-005513

BAY 11

This QA Inspector performed randomly Visual Inspection Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Lift 4 Tower strut. The weld designations

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reviewed are as follows.

SD1-STSA4-5-139M-1-2A/B, 4A/B,	SD1-STSA4-5-143M-1-2A/B, 4A/B, 21A/B, 22A/B
WD1-STSA4-5-139M-1-2A/B, 4A/B	SD1-STSA4-5-119M-1-2A/B, 4A/B
WD1-STSA4-5-119M-1-2A/B, 4A/B	SD1-STSA4-5-123M-1-2A/B, 4A/B
WD1-STSA4-5-123M-1-2A/B, 4A/B	SD1-STSA4-5-127M-1-2A/B, 4A/B
WD1-STSA4-5-143M-1-21A/B, 22A/B	
NDT Notification No-005515 R2	

This QA Inspector observed the following work in progress:

BAY 11:

This QA Inspector observed ZPMC qualified welding personnel identified as 040614, 040667. Perform Shielded Metal Arc Welding (SMAW) on Angle connection plate. Joint identified as ND1-SA4-69-119M-1, 2, 3, 4-1A, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5B-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040656, 046704. Perform Shielded Metal Arc Welding (SMAW) on Angle connection plate. Joint identified as WD1-SA4-56-127M-1, 2, 3, 4-1A, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5B-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 042195. Perform Submerged Arc Welding (SAW) on Grillage Beam plate. Joint identified as GTSA5-B/G-9A, ZPMC QC Identified as Shao Hao Long. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2221 –B-U3c-S-2.

This QA Inspector observed ZPMC qualified welding personnel identified as 047304. Perform Submerged Arc Welding (SAW) on Grillage Beam plate. Joint identified as GTSA5-B/G-10A, ZPMC QC Identified as Shao Hao Long. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2221 –B-U3c-S-2.

Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 040655. Perform Shielded Metal Arc Welding (SMAW) on 18M Beam Connect plate. Build up 20mm. Item identified as A137, ZPMC CWI Identified as Yu Dong Ping, with temporary welding repair report, WRR-T-WR3171. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) Repair. For more information see below attach photo No-1.

Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 044541. Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 5 A/E corner joint. Joint identified as WSD1-TL5-4B/F-12A, ZPMC QC Identified as Libin, with temporary welding repair report WRR-T-WR3160, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) Repair-1.

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For more information see below attach photo No-2.

This QA Inspector observed ZPMC qualified welding personnel identified as 042218. Perform Flux Core Arc Welding (FCAW) on Skirt plate and I Rib. Joint identified as ESD1-A65B/B-3. ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132 and WPS-B-T-2133.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer